

Testing and Training - An Australian View

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Australian Testing and Training Policy

Test and Evaluation

“The Australian Defence Force (ADF) Test and Evaluation policy is designed to minimize the risk of introducing new capabilities into the force structure”

Education and Training

“The ADF recognizes the role of people in achieving the required capability and the importance of education and training as a means of supporting this capability”

Australian Defence Education and Training

- Defence E&T consumes \$1.6B or ~15% of Defence outlays per year
- Regional access to technology means that the ADF needs to retain the capability edge by
 - optimization of systems to our environment
 - better trained personnel (key capability)
- The Joint Education and Training (JET) executive was recently formed to
 - improve the effectiveness of our training systems
 - ensure that the right training is provided to the right people at the right time

Australian Defence Education and Training

The JET mandate achieved by :

- rationalization of systems and processes
 - new joint ADF schools
- better links between E&T and personnel planning
 - whole of life learning
- develop culture to support workplace learning
 - learning and work should be indistinguishable
- integration with the national education and training system
 - improved E&T options
 - closer ties with vocational E&T sector

Australian Defence Education and Training

- exploitation of new technologies to enhance E&T
 - modeling and simulation
 - web based delivery services, virtual reality
 - flexibility in timing, location and mode
- creation of the Australian Defence College (ADC)
 - build partnerships with the higher learning sector
- We are at the beginning of a major transform to the learning culture of the Australian Defence Force



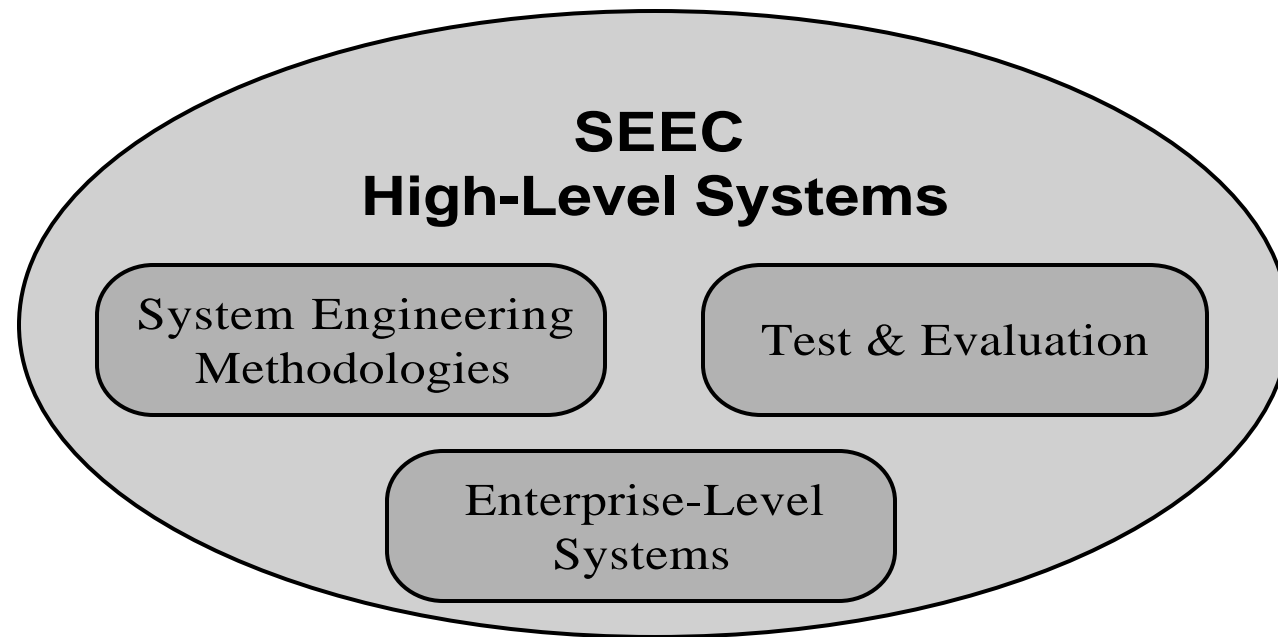
Australian Defence Test and Evaluation

- Bulk of T&E undertaken by the individual services
 - control of T&E activities a service responsibility
 - policy and procedures are developed by each service individually
 - each service has a major unit that performs T&E
 - Army (ATEA)
 - Navy (RANTEG & RANRAU)
 - Airforce (ARDU, AMT&D Unit and specialist centers)
- Australia has over 66 Defence establishments where T&E is performed.

Australian Defence Test and Evaluation

- Australia's Defence Science and Technology Organization (DSTO) runs many of these range facilities
 - own trials directorate (DTRIALS)
- Australian T&E acquisition process is based on US Phased Acquisition Process (PAP) with some variations
- Australian Center for Test and Evaluation now subsumed into the Systems Engineering and Evaluation Centre (SEEC) in Adelaide
 - Hosted 1998 International Test and Evaluation Conference (ITEA)

SEEC Research Areas



The Centre will concentrate on methodology, process and tools research to support high-level system architecting, conceptualisation, creation, and operations

New Challenges for the Australian Defence Force

- Interoperability with the US and others
 - staff exchanges
 - joint training exercises
 - cooperation in test and evaluation
- ADF becoming parent service for platforms and systems
 - COLLINS, ANZAC, JORN, AEW&C etc
- Replacement of platforms reaching their LOT
 - FFGs, P3Cs, F-111 etc
 - budget constraints
- Defeating Attacks on Australia vs peacekeeping roles
 - force structure

Current and Near Term T&E Activities in Australia

Navy

- COLLINS Class Submarines
- ANZAC Class of Surface Combatants
- HUON Minehunting Ships
- Project SEA 1400 New Surface Combatants



AirForce

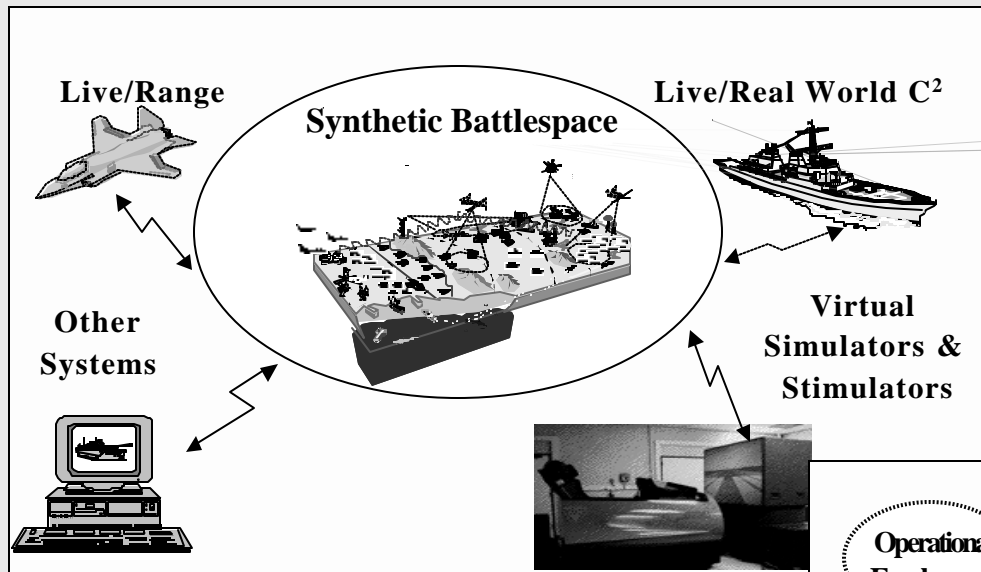
- AEW&C
- AP-3C Maritime Patrol Aircraft
- Project AIR6000 Replacement Fighters



Army

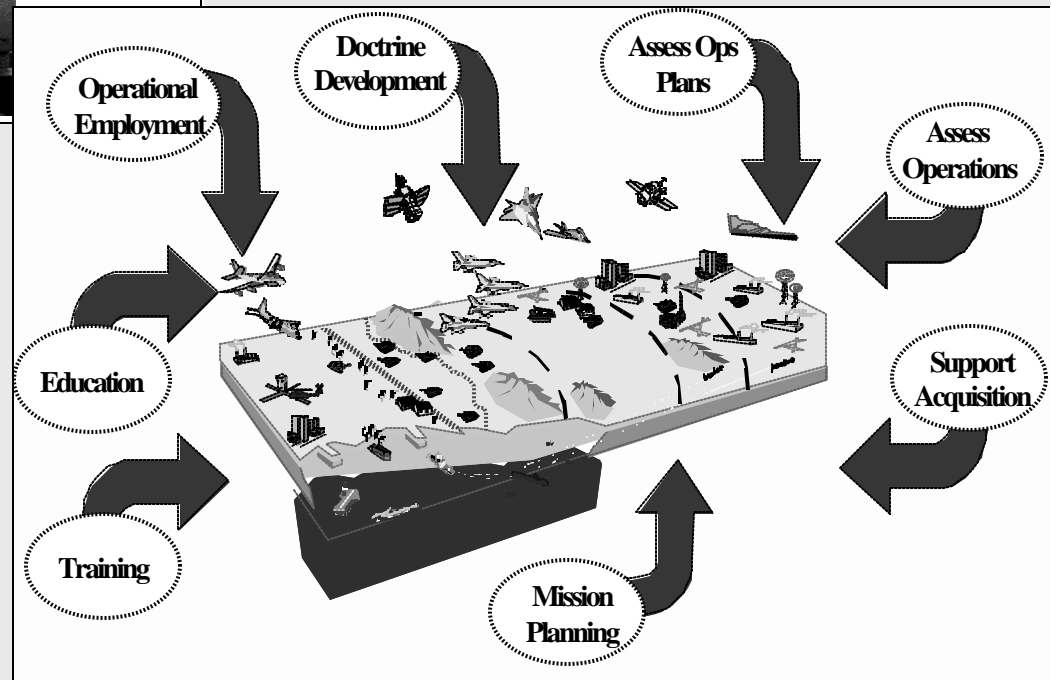
- Restructuring The Army (RTA)
- AIR 87 Helicopter project

An Example - Synthetic Battlespace Developments

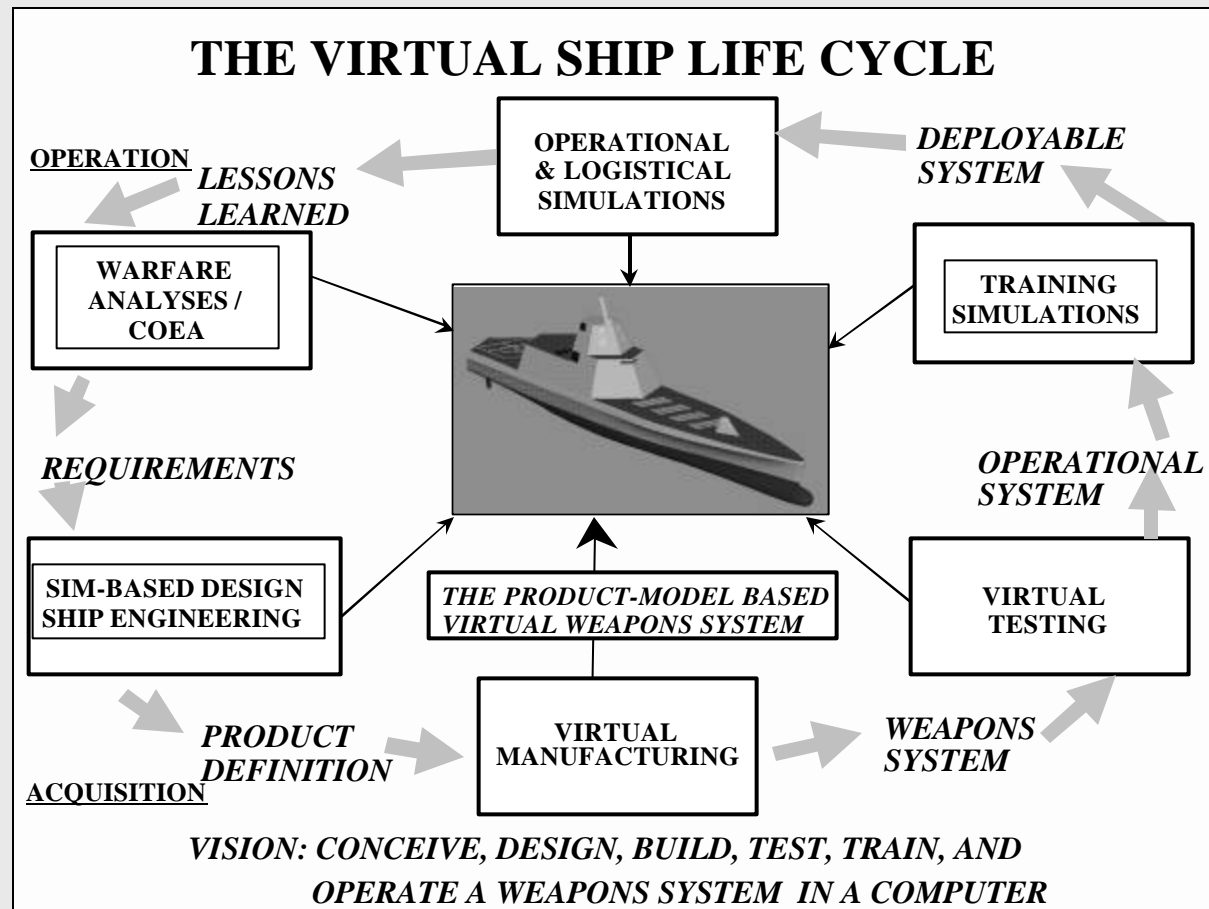


Replicate or bring on-line the in-service operations rooms of platforms

Represent the threat environment with high fidelity



Australian Virtual Surface Ship Development



Another Example - Black Hawk Simulator

This project involves the supply of an S-70A-9 Black Hawk full flight and mission simulator, a full support package and the design and construction of a simulator facility. The prime contractor is CAE Electronics Ltd (Canada).

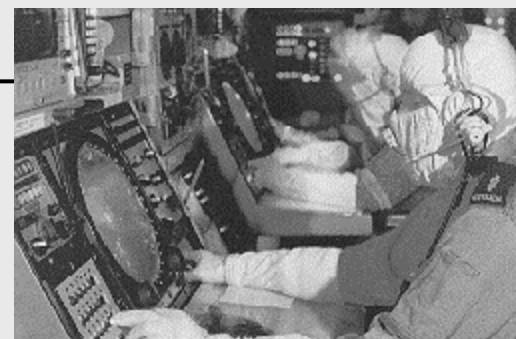
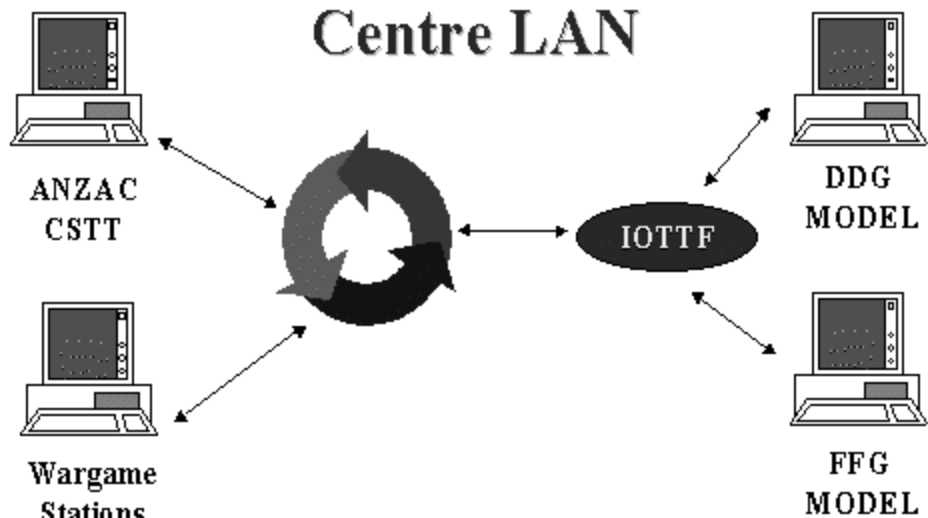


Another Example - Maritime Warfare Training System

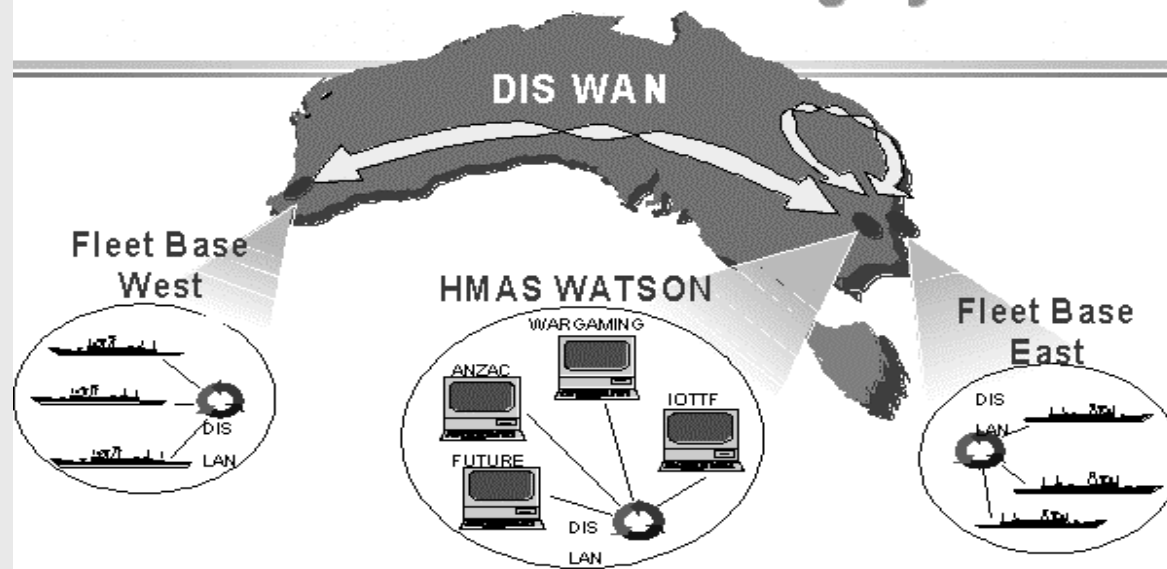
- Training to improve readiness
 - at sea training time (expensive)
 - classroom training and simulation
- Link the integrated operations team training facility (DDG/FFG simulator) and the combat system team trainer (ANZAC simulator) to allow participation in common multi-ship tactical scenarios
- Ultimately create a wide area simulation network to include other ADF simulations
- Could also include ships alongside or at sea using their OBTS
- Initially DIS implementation, migrate to HLA

Maritime Warfare Training

Centre LAN



Maritime Warfare Training System



A Final Example - Exercise Crocodile 99 (West)

- Exercise Crocodile 99 West was undertaken using 1Bde 160 km south-east of Tennant Creek
- Objective was to train battle groups, sub-units and individuals in the tactics, techniques and procedures employed in peace support operations. Also an opportunity to test new doctrine and equipment.
- Transition between conventional and peacekeeping operations
 - Example: mortar section manned traffic control points, escorted food conveyes etc



Testing and Training - Observations

- Australia is revamping its Education and Training systems - formation of JET executive
- Major challenges facing the ADF in T&E
 - interoperability with US and others
 - parent service for platforms and systems
- Extensive opportunities to collaborate and cooperate in testing and training
 - service to service agreements
 - bilateral agreements (Deutch-Ayers)
 - The Technical Cooperation Program (TTCP)